

PATENT SPECIFICATION



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300,037

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PROVISIONAL SPECIFICATION.

Improvements relating to Couplings.

I, JAMES BRIGHOUSE, of British nationality, of 217, Union Street, Aberdeen, Scotland, do hereby declare the nature of this invention to be as follows:—

5 The subject of this invention is a coupling for broken shafts, pipes and the like comprising essentially a split tube of which the halves are shaped to embrace the ends of a shaft, pipe or the like, and an elongated ring adapted to fit telescopically on said halves so as to bind said halves together to re-constitute the tube.

Where the coupling is designed for the repair of a shaft, the inner periphery of the split tube is associated with keys adapted to transmit rotation from one broken end of the shaft to the other broken end, and where the coupling is designed to connect together the broken ends of a 20 pipe the split tube may be screw-threaded

for engagement with threads correspondingly formed on the broken ends, or the split tube may be formed with ridges adapted for engagement with grooves correspondingly formed on the broken ends 25 of the pipe.

The exterior of the split tube presents a conical surface for co-operation with a conical socket correspondingly formed on the elongated ring.

It will be understood that the coupling herein described is designed to replace existing standard pipe couplings and served as a permanent coupling.

Dated this 19th day of December, 1927.
CRUIKSHANK & FAIRWEATHER,
29, St. Vincent Place, Glasgow, and
65/66, Chancery Lane, London, W.C. 2,
Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements relating to Couplings.

35 I, JAMES BRIGHOUSE, of British nationality, of 217, Union Street, Aberdeen, Scotland, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly 40 described and ascertained in and by the following statement:—

This invention relates to an improved construction of coupling for shafts, pipes and the like.

45 A coupling according to the invention comprises essentially a split tube of which the halves are shaped to embrace the contiguous ends of shafts, pipes or the like to be coupled, said tube presenting a continuously tapered external surface, and an external sleeve having a bore tapered to conform with the external surface of the tube and telescopically engageable therewith whereby to bind said halves together 50 to re-constitute the tube, the construction being such as to obviate the use of bolts, nuts and spanners, and, in the application to pipes, obviating the necessity for upsetting the pipe ends to form flanges.

60 In the application of the coupling to

shafts the inner periphery of the split tube is associated with keys adapted for engagement with key-ways suitably formed in the shaft ends while, in the application of the coupling to pipes, the split tube 65 may be internally screw-threaded for engagement with mating threads formed on the pipe ends, or the split tube may be formed with ridges adapted for engagement with mating grooves formed on the 70 pipe ends.

Two embodiments of the invention are illustrated in the accompanying drawings in which Figs. 1 and 2 are views showing a coupling for shafts, Fig. 1 being an end elevation and Fig. 2 a longitudinal section showing the coupling in operation. Figs. 3 and 4 are views of a preferred form of coupling for connecting pipes Fig. 3 being an end elevation and Fig. 4 80 a longitudinal section showing the coupling in operation.

The coupling shown comprises a split tube of which the halves 1, 2, are shaped to embrace the ends of a shaft, pipe or the like, and an external sleeve 3 adapted to

fit telescopically on the halves 1, 2, so as to bind the halves together to re-constitute the tube.

In the form shown in Figs. 1 and 2, which is designed for coupling shafts, the inner periphery of the split tube is formed with keys 4 adapted to transmit rotation from one shaft to the other shaft. The keys 4 engage keyways 5 cut in the shafts.

10 In the form shown in Figs. 3 and 4, which is designed to connect together the ends of a pipe, the split tube is formed with ridges 6 adapted for engagement with grooves 7 correspondingly formed on the ends of the pipe. Alternatively, the tube may be screw-threaded for engagement with threads on the pipe.

The exterior of the split tube presents a continuously tapered surface for co-operation with a continuously tapered bore formed in the external sleeve 3.

15 It will be understood that the coupling herein described is designed to replace existing standard pipe couplings and 20 serves as a permanent coupling.

The arrangement described may be conveniently employed for connecting the rods used in metallic scaffolding and for coupling a pipe to a bend or for tying the 30 ends of the rods used in re-inforced concrete structures.

Having now particularly described and ascertained the nature of my said invention, and in what manner the same is

to be performed, I declare that what I claim is:—

1. A coupling for shafts, pipes and the like comprising a split tube of which the halves are shaped to embrace the contiguous ends of shafts, pipes or the like 40 to be coupled, said tube presenting a continuously tapered external surface, and an external sleeve having a bore tapered to conform with the external surface of the tube and telescopically engageable therewith whereby to bind said halves together 45 to re-constitute the tube.

2. A coupling according to Claim 1 in which the inner periphery of the split tube is associated with keys adapted for engagement with keyways on the contiguous ends 50 of the shafting.

3. A coupling according to Claim 1 in which the split tube is internally screw-threaded for engagement with mating 55 threads formed on the contiguous pipe ends.

4. A coupling according to Claim 1 in which the split tube is formed with ridges engageable with mating grooves formed 60 on the contiguous pipe ends.

5. The herein-described and illustrated coupling for shafts, pipes and the like.

Dated this 22nd day of August, 1928,
CRUIKSHANK & FAIRWEATHER,
29, St. Vincent Place, Glasgow, and
65/66, Chancery Lane, London, W.C. 2,
Agents for the Applicant.

[This Drawing is a reproduction of the Original on a reduced scale.]

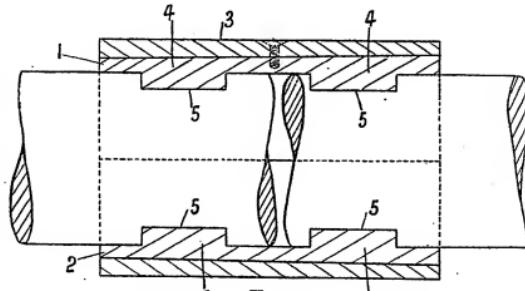


FIG. 2.

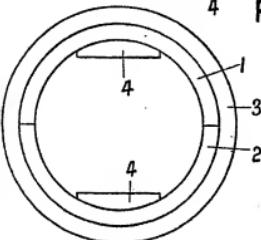


FIG. 1.

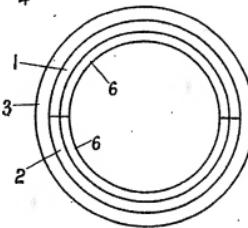


FIG. 3.

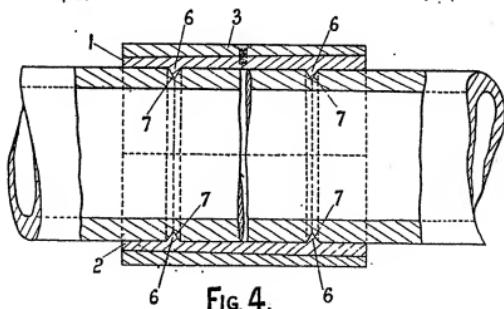


FIG. 4.